

**Appl. No. 09/720,149**  
**Amendment and/or Response**  
**Reply to Office action of 24 May 2004**

**Page 2 of 10**

**Amendments to the Claims:**

A listing of the entire set of pending claims (including amendments to the claims, if any) is submitted herewith per 37 CFR 1.121. This listing of claims will replace all prior versions, and listings, of claims in the application.

**Listing of Claims:**

1. (Original) A device for use in a data bus system, wherein the bus system comprises a host station, a bus cable and the device coupled to the host station via the bus cable, the bus cable comprising a data transfer conductor and power supply conductors for enabling the device to obtain operating power from the bus system via the bus cable, the device comprising

a connector for coupling the device to the bus cable, and

a control circuit coupled to the connector,

wherein

the control circuit is arranged

to detect whether a power supply is connected to the power supply conductors and

to start waiting in a slave mode for commands received via the data transfer conductor or

to start operating in a stand-alone mode,

dependent on whether or not connection of the power supply has been detected respectively.

2. (Original) A device according to Claim 1, wherein the bus system comprises a pull circuit for pulling a potential of the data transfer conductor away from a potential of a first one of the power supply conductors, the bus system being arranged to detect whether or not the potential of the data transfer conductor is pulled back to the potential of the first one of the power supply conductors via the bus cable, so as to determine whether the device is connected to the bus cable, wherein the device comprises

Appl. No. 09/720,149  
Amendment and/or Response  
Reply to Office action of 24 May 2004

Page 3 of 10

a pull back circuit for pulling back the potential of the data transfer conductor to the potential of the first one of the power supply conductors,  
the control circuit enabling and disabling the pull back circuit when operating in the slave mode and the stand-alone mode respectively.

3. (Currently amended) A device according to Claim 1 for use in a data bus system, wherein the bus system comprises a host station, a bus cable and the device coupled to the host station via the bus cable, the bus cable comprising a data transfer conductor and power supply conductors for enabling the device to obtain operating power from the bus system via the bus cable, the device comprising  
a connector for coupling the device to the bus cable, and  
a control circuit coupled to the connector,  
wherein  
the control circuit is arranged  
to detect whether a power supply is connected to the power supply  
conductors and  
to start waiting in a slave mode for commands received via the data  
transfer conductor or  
to start operating in a stand-alone mode,  
dependent on whether or not connection of the power supply has  
been detected respectively, and,

wherein the bus system further comprises a pull circuit for pulling a potential of the data transfer conductor away from a potential of a first one of the power supply conductors, the bus system being arranged to detect whether or not the potential of the data transfer conductor is pulled back to the potential of the first one of the power supply conductors via the bus cable so as to determine whether the device is connected to the bus cable, the device comprising

a first resistive element and a switching element, connected in series between the data transfer conductor and  
a pull back potential source,  
the device comprising

Appl. No. 09/720,149  
Amendment and/or Response  
Reply to Office action of 24 May 2004

Page 4 of 10

a node coupled to a control electrode of the switching element,  
a second and third resistive element coupled between the node and the first one and

a second one of the power supply conductors respectively,  
so that the switching element is non-conductive when a potential of the node is affected only by the power supplied via the power supply conductors via the second and third resistive element,

the control circuit having an I/O connection coupled to the node,  
the control circuit switching the I/O connection as an input to detect whether power is supplied via the power supply conductors and

the control switching the I/O connection as an output to make the switching element conductive to enable pull back.

4. (Original) A device according to Claim 3, wherein  
the pull back potential source is the first one of the power supply conductors.

5. (Original) A device according to Claim 1, wherein  
the control circuit is arranged to detect repeatedly whether power is supplied via the power supply conductors when the device operates in the slave mode or the stand-alone mode,

the control circuit switching from the slave mode to the stand-alone mode and/or vice versa when absence or presence of power supply is detected respectively.

6. (Previously presented) A device according to Claim 5, wherein the bus system comprises a pull circuit for pulling a potential of the data transfer conductor away from a potential of a first one of the power supply conductors, the bus system being arranged to detect whether or not the potential of the data transfer conductor is pulled back to the potential of the first one of the power supply conductors via the bus cable so as to determine whether the device is connected to the bus cable, wherein the device comprises

Appl. No. 09/720,149  
Amendment and/or Response  
Reply to Office action of 24 May 2004

Page 5 of 10

a pull back circuit for pulling back the potential of the data transfer conductor to the potential of the first one of the power supply conductors,  
the control circuit enabling and/or disabling the pull back circuit when switching from the stand-alone mode to the slave mode or vice versa respectively.

7. (Original) A device according to Claim 6, wherein

the pull back circuit comprises

a first resistive element and

a switching element, connected in series between the data transfer conductor and a pull back potential source,

a delay element for holding a voltage across the switching element for a limited time interval after the switching element is signaled to switch from conductive to non-conductive,

the device comprising

a node coupled to a control electrode of the switching element,

a second and third resistive element coupled between the node and the first one and a second one of the power supply conductors respectively,

so that

the switching element is non-conductive when power is supplied via the power supply conductors and

a potential of the node is affected only via the second and third resistive element,

the control circuit having an I/O connection coupled to the node,

the control circuit switching the I/O connection as an input to detect whether power is supplied via the power supply conductors and

the control switching the I/O connection as an output to make the switching element conductive when the device waits in the slave mode.

8. (Original) A device according to Claim 1, wherein the bus system is a USB bus system.

Appl. No. 09/720,149  
Amendment and/or Response  
Reply to Office action of 24 May 2004

Page 6 of 10

9. (Previously presented) A USB apparatus that is configured to provide at least one function that is independent of providing USB functionality, comprising:

a controller that is configured to  
determine whether power is being provided to the apparatus via a USB bus, and  
if the power is being provided to the apparatus via the USB bus,  
placing the USB apparatus in a slave mode wherein the function is performed in dependence upon communications received via the USB bus,  
otherwise,  
placing the USB apparatus in a stand-alone mode wherein the function is performed independent of communications received via the USB bus.

10. (Previously presented) The apparatus of claim 9, wherein

the controller is further configured to provide one or more signals to the USB bus to indicate a disconnection of the apparatus from the USB bus when the controller determines that power is not being provided via the USB bus.

11. (Previously presented) The apparatus of claim 10, wherein

the controller is further configured to  
determine whether power is subsequently provided to the apparatus after determining that power is not being provided via the USB bus, and  
provide one or more signals to the USB bus to indicate a connection of the apparatus from the USB bus when the controller determines that power is subsequently being provided via the USB bus.

12. (Previously presented) The apparatus of claim 11, wherein

the controller is further configured to delay providing the one or more signals to the USB bus to indicate a connection of the apparatus to the USB bus.